

Title (en)  
COLORED METAL FILMS AND METHODS OF MANUFACTURING THEREOF

Title (de)  
GEFÄRBTE METALLFILME UND VERFAHREN ZU IHRER HERSTELLUNG

Title (fr)  
FILMS MÉTALLIQUES COLORÉS ET LEURS PROCÉDÉS DE FABRICATION

Publication  
**EP 2918423 B1 20190619 (EN)**

Application  
**EP 15158230 A 20150309**

Priority  
TW 103108123 A 20140310

Abstract (en)  
[origin: EP2918423A2] The present invention relates to a colored metal film comprising a metal article and a plurality of pores. The plurality of pores further comprises a high layer, an intermediate layer, and a low layer, in which the three layers together forms an embossed image. The present invention also relates to a method of manufacturing colored metal films. The method is used to manufacture a flat image or an embossed image on a metal article. The method comprises a finishing process, a first coating process, a color adjustment, a first printing process, an etching process, a second coating process, a second printing process, a sealing process, and a cleaning process.

IPC 8 full level  
**B41M 5/00** (2006.01); **B41M 7/00** (2006.01); **B41M 1/28** (2006.01)

CPC (source: EP KR US)  
**B41J 3/413** (2013.01 - KR); **B41M 1/28** (2013.01 - KR); **B41M 5/0047** (2013.01 - EP US); **B41M 5/0058** (2013.01 - EP US);  
**B41M 7/00** (2013.01 - EP US); **C23F 1/02** (2013.01 - US); **C25D 11/02** (2013.01 - US); **C25D 11/08** (2013.01 - KR); **B41M 1/28** (2013.01 - EP US);  
**Y10T 428/24851** (2015.01 - EP US)

Citation (examination)  
US 4375391 A 19830301 - KUSHIDA HACHIRO [JP], et al

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 2918423 A2 20150916; EP 2918423 A3 20151230; EP 2918423 B1 20190619;** CN 104908504 A 20150916; CN 104908504 B 20180703;  
CN 108674082 A 20181019; CN 108674082 B 20191011; JP 2015168887 A 20150928; JP 6145244 B2 20170607; KR 101886586 B1 20180807;  
KR 20150105933 A 20150918; KR 20180003508 A 20180109; KR 20180050269 A 20180514; TW 201534487 A 20150916;  
TW I576251 B 20170401; US 10781528 B2 20200922; US 2015251472 A1 20150910; US 2017342586 A1 20171130; US 9988731 B2 20180605

DOCDB simple family (application)  
**EP 15158230 A 20150309;** CN 201410206490 A 20140516; CN 201810347753 A 20140516; JP 2015046959 A 20150310;  
KR 20150033041 A 20150310; KR 20170179873 A 20171226; KR 20180051234 A 20180503; TW 103108123 A 20140310;  
US 201514644179 A 20150310; US 201715678091 A 20170815